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AGRICULTURE**

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Programs

Agricultural  
Marketing  
Service

Livestock and  
Seed Program

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**I** **NSTITUTIONAL**

**M** **EAT**

**P** **URCHASE**

**S** **PECIFICATIONS**

**FOR FRESH LAMB AND MUTTON  
SERIES 200**

**APPROVED BY USDA**

**EFFECTIVE DATE - APRIL 1996**

Supersedes interim edition effective January 1995



# INSTITUTIONAL MEAT PURCHASE SPECIFICATIONS

## FOR FRESH LAMB AND MUTTON

### SERIES 200

The United States Department of Agriculture (USDA) through its Agricultural Marketing Service (AMS) develops and maintains the Institutional Meat Purchase Specifications (IMPS) for meat and meat products. The complete IMPS series includes the following ten documents:

General Requirements	
Quality Assurance Provisions	
Fresh Beef .....	Series 100
Fresh Lamb and Mutton.....	Series 200
Fresh Veal and Calf .....	Series 300
Fresh Pork .....	Series 400
Cured, Cured & Smoked, & Fully Cooked Pork Products .....	Series 500
Cured, Dried, and Smoked Beef Products .....	Series 600
Edible By-Products .....	Series 700
Sausage Products .....	Series 800

These specifications are recommended for use by any meat product procuring activity. For assurance that procured items comply with these detailed requirements, the USDA, through its Meat Grading and Certification Branch (MGCB), provides a voluntary Meat Certification Service. For labeling purposes, only product Certified by the MGCB may contain the letters "IMPS" on the product label. Purchasers desiring this service should contact:

**USDA, MRP,AMS, Livestock and Seed Program**  
**Meat Grading and Certification Branch**  
Stop 0248, Room 2628 S-Bldg  
1400 Independence Ave. SW  
Washington, D.C. 20250-0248 PHONE: (202)-720-1113 FAX: (202)-690-4119

.....Internet Address: <http://www.ams.usda.gov/lsg/lm-mg.htm>

For any assistance regarding these documents and for additional copies, please contact:

**USDA, MRP, AMS, Livestock and Seed Program**  
**Standardization Branch**  
Stop 0254, Room 2628 S-Bldg  
1400 Independence Ave. SW  
Washington, D.C. 20250-0254 PHONE (202)-720-4486 FAX (202)-720-1112

# IMPS Ordering Checklist

The following checklist will assist the purchaser in providing contractual language necessary to describe the IMPS product and service desired. Each element within the checklist is further defined within section I. **ORDERING DATA TO BE SPECIFIED BY THE PURCHASER.**

A. **Item Number** (See page 5.)

- Special instructions
- Purchaser Specified Options (PSO)
- Added ingredients (NA)
- Mechanical tenderization (NA)
- Class
- Style

B. **Grade and Special Requirements** (See page 9.)

C. **State of Refrigeration** (See IMPS GENERAL REQUIREMENTS, section I. MEAT HANDLING)

- Chilled
- Frozen

D. **Fat Limitations** (See page 9.)

E. **Portion Cut Weight, Thickness, and Shape** (applicable to portion cut items only) See page 10.

F. **Weight Range** (See weight range tables for cuts and roasts on page 11.)

G. **Netting and Tying** (See page 13.)

H. **Packaging and Packing** (See IMPS GENERAL REQUIREMENTS, section II. PACKAGING AND PACKING)

I. **Quality Assurance** (See IMPS QUALITY ASSURANCE PROVISIONS)

- Method of examination
- Acceptable Quality Levels (AQLs)
- Certification – (See page 13, and refer to the IMPS GENERAL REQUIREMENTS, Section III. USDA CERTIFICATION.

## I. ORDERING DATA TO BE SPECIFIED BY THE PURCHASER

## **A. ITEM NUMBER**

### **Special Instructions**

The purchaser shall specify: (1) IMPS item number, Style (when applicable), product name, and weight range to be purchased; and (2) applicable options modifications, and special instructions to the requirements of the IMPS. All items are listed in **TABLE 1. INDEX OF IMPS LAMB PRODUCTS AND WEIGHT RANGES.**

The detailed requirements for each item are listed within the MATERIAL REQUIREMENTS and ITEM DESCRIPTIONS sections of this document. In conjunction with other markings that may be required in the GENERAL REQUIREMENTS and by Food Safety and Inspection Service (FSIS) Regulations, the IMPS item number, "Lamb," or "Mutton" and the product name from Table 1 shall be used for marking shipping containers.

### **Purchaser Specified Options**

The purchaser will be allowed to specify options (tail length, special item descriptions, roast size or muscle presence) for individual IMPS items. Each PSO will be included in the contract and can vary from order to order depending on the options/needs specified by the purchaser.

### **Added Ingredients (NA)**

### **Mechanical Tenderization (NA)**

**CLASS** - The Purchaser shall specify the desired class.

1. LAMB
2. YEARLING MUTTON
3. MUTTON

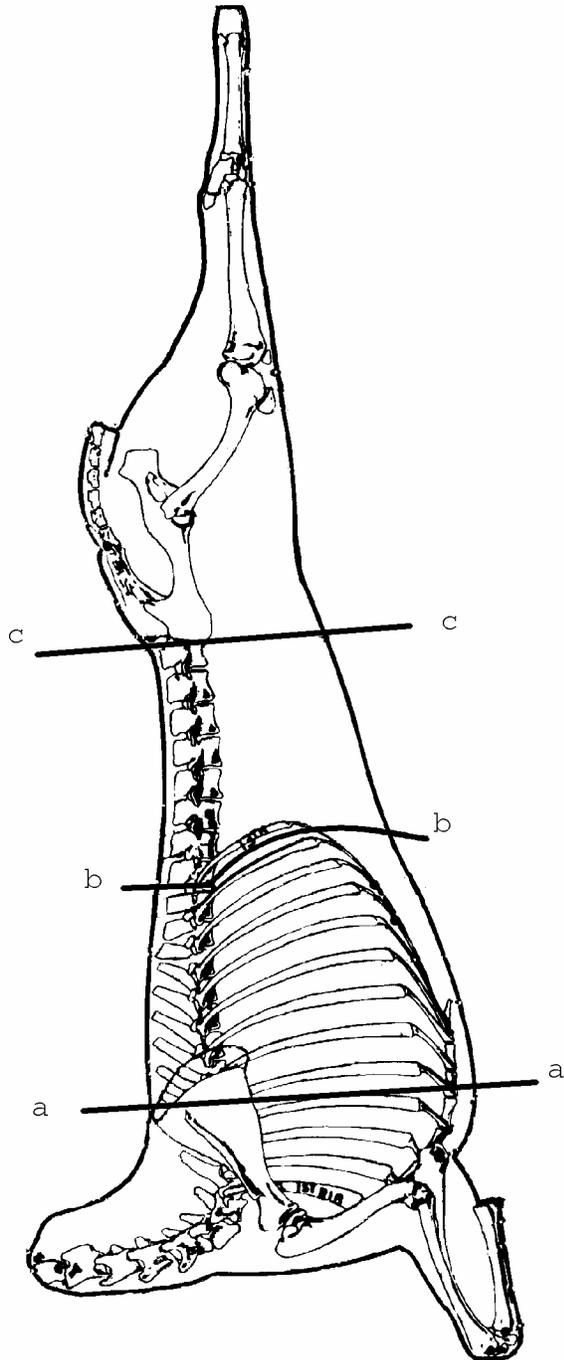
Carcasses are classified as lamb, yearling mutton, or mutton depending upon their evidences of maturity as indicated by the development of muscular and skeletal systems. Lamb carcasses possess less evidence of advanced maturity as opposed to mutton carcasses.

### **STYLE**

The purchaser may specify style of carcass fabrication (as illustrated for Cutting Instructions on the following pages) desired when option is available within an individual item description. When not specified, the style of fabrication shall be in accordance with the Cutting Instructions for Style A. Style B is most commonly used for international trading

# Cutting Instructions Style A

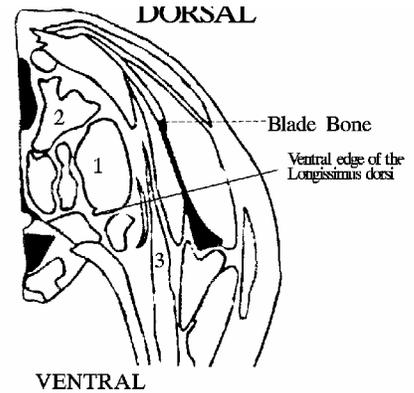
## Separation a. - Shoulder-Bracelet Separation



1 - Longissimus dorsi

2 - Gluteus medius

The shoulder is separated from the bracelet by a straight cut between the 4th and 5th ribs, leaving 4 ribs on the shoulder. The cut surface (see figure) shall expose the *spinalis dorsi* to be dorsal in relationship to the *longissimus dorsi*

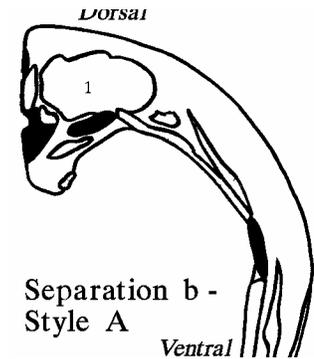


Separation a - Style A

- 1 - Longissimus dorsi
- 2 - Spinalis dorsi
- 3 - Serratus ventralis

## Separation b. Bracelet-Loin Separation

The bracelet is separated from the loin by a cut which follows the natural curvature between the 12th and 13th ribs. Leaving 8 ribs (ribs 5-12) with the bracelet and no more than 1 rib remaining with the loin.

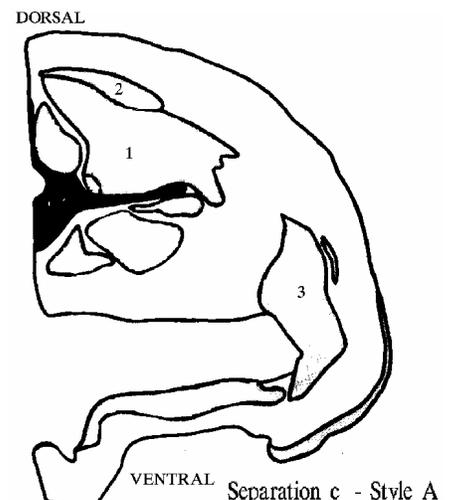


Separation b - Style A

- 1 - Longissimus dorsi

## Separation c. Loin-Leg separation

The leg is separated from the loin by a straight cut, approximately perpendicular to the length of the leg, passing anterior to the hip bone and hip bone cartilage. The cut surface, which is approximately perpendicular to the length of the leg, exposes the *gluteus medius* and does not expose the *tensor fasciae latae* (see figure).



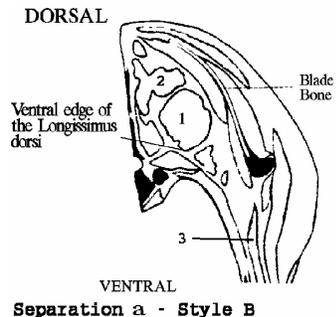
Separation c - Style A

- 3 - Obliquus internus abdominis

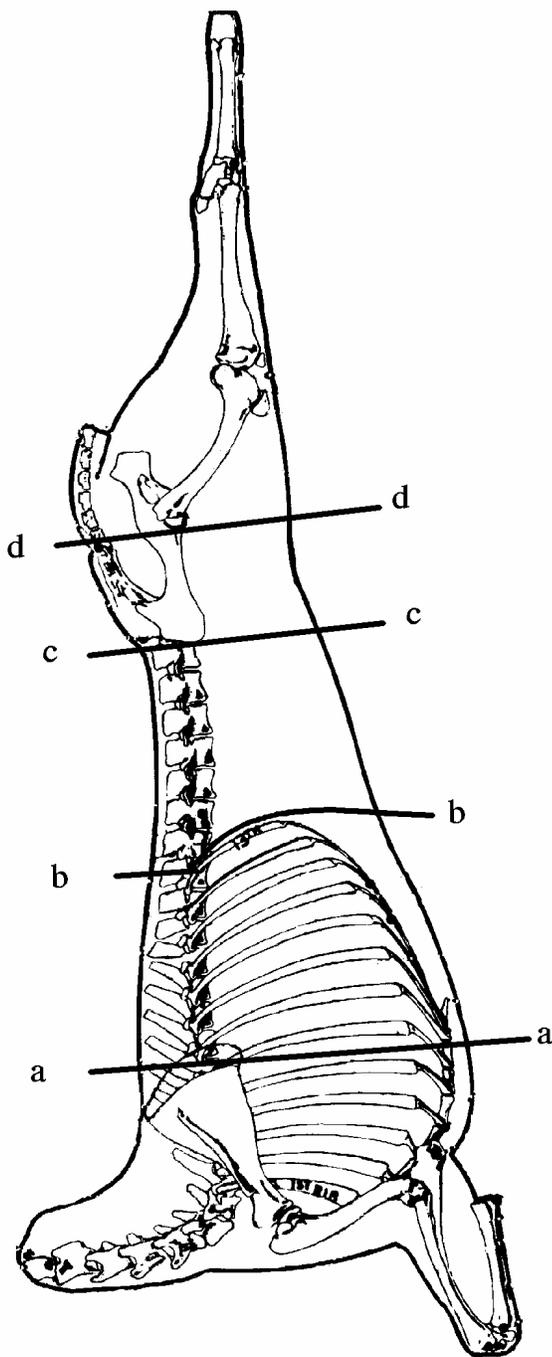
## Cutting Instructions Style B

### Separation a. - Shoulder-Bracelet Separation

The shoulder is separated from the bracelet by a straight cut between the 5th and 6th ribs, leaving 5 ribs on the shoulder. The cut surface (see figure) shall expose the *spinalis dorsi* (2) to be dorsal in relationship to the *longissimus dorsi* (1) and the *serratus ventralis* (3) shall not extend past (dorsal to) the ventral edge of the *longissimus dorsi*.

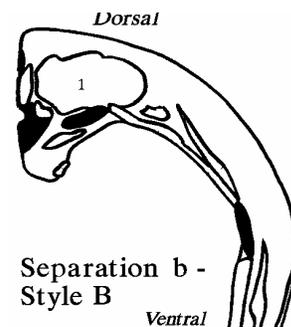


- 1 – longissimus dorsi
- 2 -- spinalis dorsi
- 3 – serratis ventralis



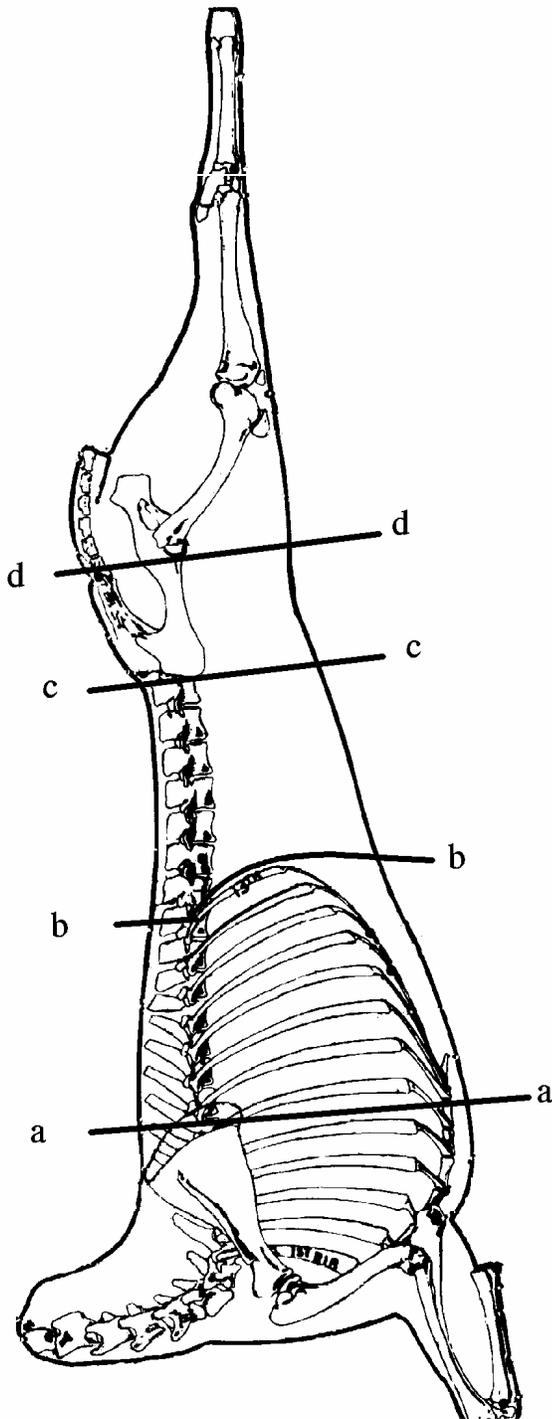
### Separation b. Bracelet-Loin Separation

The bracelet is separated from the loin by a cut which follows the natural curvature posterior to the 13th rib, leaving 8 ribs (ribs 6-13) with the bracelet and no rib remaining with the loin.



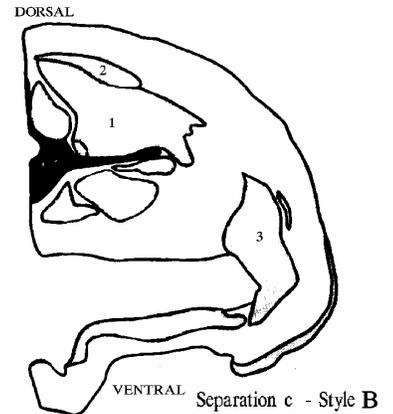
- 1 – Longissimus dorsi

## Cutting Instructions Style B (continued)



### Separation c. Loin-Leg separation

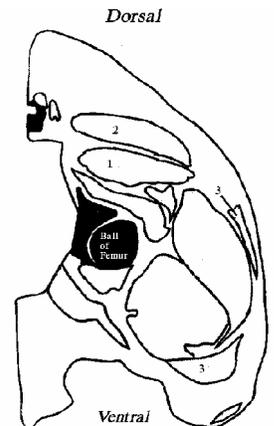
The leg is separated from the loin by a straight cut, approximately perpendicular to the length of the leg, passing anterior to the hip bone and hip bone cartilage. The cut surface, which is approximately perpendicular to the length of the leg, exposes the *gluteus medius* and does not expose the *tensor fasciae latae* (see figure).



- 1 - Longissimus dorsi
- 2 - Gluteus medius
- 3 - Obliquus internus abdominis

### Separation d. Sirloin-Leg Separation

The leg is separated from the sirloin by a straight cut; (1) approximately perpendicular to the length of the leg; (2) starting at the juncture of the last sacral and first caudal vertebra and (3) passing anterior to the protuberance of the femur (while exposing the ball of femur). The cut surface (see figure) shall expose; (1) the *gluteus medius* to be approximately equal in size to the *biceps femoris* and (2) the *tensor fasciae latae* shall be exposed and shall not extend around the knuckle.



Separation d -Style B

- 1 - Gluteus Medius
- Biceps Femoris
- Fasciae Latae

- 2 -
- 3 - Tensor

**B. GRADE AND SPECIAL REQUIREMENTS** - There are four quality grades within each class: Prime, Choice, Good, and Utility for lamb and yearling mutton, and Choice, Good, Utility, and Cull for mutton. There are five yield grades applicable to all classes of ovine carcasses, denoted by numbers 1 through 5, with yield grade 1 representing the highest cutability.

The purchaser may specify grade (quality and/or yield) for any item. More information regarding grade criteria may be obtained from the same address as this document.

For quality grade, the purchaser may specify the full range(s) of the grade(s) (e.g., U.S. Choice, U.S. Good, etc.; or U.S. Choice or higher, U.S. Good or higher, etc.). For yield grade (YG), the purchaser may specify the desired grade(s) (i.e., YG 1, YG 2, etc.).

The official USDA grade designation will appear in any one or any combination of the following ways: (1) container markings, (2) on individual bags or wrapping material, or (3) legible roller brand appearing on the meat. The processor shall comply with Food Safety and Inspection Service (FSIS) grade labeling procedures.

**C. STATE OF REFRIGERATION** - (see IMPS General Requirements for details).

**D. FAT LIMITATIONS**

**Carcasses, Saddles, Wholesale/Primal Cuts:** The purchaser may specify yield grade and/or maximum average thickness of surface fat for the following IMPS Series 200 Item Nos.: 200, 200A, 200B, 202, 203, 204, 206, 207, 209, 229, 229A, 230, 231, 232, 232E, 233, 235, 236, 242 and 243.

**Cuts and Roasts:** Except for shank items, the purchaser shall specify one of the following maximum average thicknesses of surface fat unless definite fat limitations are indicated in the detailed item descriptions.

Maximum Average Thickness <sup>1/</sup>	Maximum At Any One Point
1/4 inch (6 mm)	3/8 inch (9 mm)
1/8 inch (3 mm)	1/4 inch (6 mm)
Practically Free (75% lean/seam surface exposed)	1/8 inch (3 mm)
Peeled/Denuded (remaining fat shall not exceed 1.0 inch in any dimension)	1/8 inch (3 mm)
Peeled/Denuded, Surface Membrane Removed (90% lean exposed)	1/8 inch (3 mm)

**Note:** When average fat thicknesses are specified in item descriptions, the appropriate "Maximum at Any One Point" limitation shall apply.

**Chops:** The purchaser shall specify one of the following maximum (at any one point) thickness

of surface fat on the edges of the chop unless definite fat limitations are indicated in the detailed item descriptions. If not specified, fat thickness shall not exceed 1/4 inch (6 mm) at any one point.

<b>Maximum fat thickness at any one point for portion cuts <sup>1/</sup></b>
1/4 inch (6 mm)
1/8 inch (3 mm)
Practically free (75% lean/seam surface exposed and remaining fat shall not exceed 1/8 inch (3 mm))
Peeled/Denuded (remaining fat shall not exceed 1.0 inch in any dimension and/or 1/8 inch (3 mm) in thickness)
Peeled/Denuded, Surface Membrane Removed (90% lean exposed and remaining fat shall not exceed 1/8 inch (3 mm))

<sup>1/</sup> When fat trim requirements are specified by the purchaser or within the individual item description, all fell shall be removed

### **E. PORTION-CUT WEIGHT, THICKNESS, AND SHAPE<sup>1/</sup>**

The purchaser shall specify the portion weight and/or thickness, or shape desired. For assistance in specifying weight, see Table 2. Unless other portion weight and/or thickness tolerances are specified by the purchaser, the following tables shall be used. When both weight and thickness are specified, it is recommended that those requirements be limited to items that are mechanically pressed and/or sliced.

#### **PORTION THICKNESS TOLERANCES**

Specified Thickness	Thickness Tolerance	Thickness Uniformity
1 inch (25 mm) or less	+/- 3/16 inch (5 mm)	3/16 inch (5 mm)
More than 1 inch (25 mm)	+/- 1/4 inch (6 mm)	1/4 inch (6 mm)

#### **PORTION WEIGHT TOLERANCE**

Specified Weight	Weight Tolerance	Thickness Uniformity
Less than 6.0 ounces (170 g)	+/- 1/4 oz. (7 g)	3/16 inch (5 mm)
6.0 ounces (170 g) or more	+/- 1/2 oz. (14 g)	1/4 inch (6 mm)

<sup>1/</sup> Thickness measurements not applicable within 1/4 inch (6mm) of the edge. Also, —value listed under thickness uniformity is the maximum allowable difference between the thinnest and thickest measurement of an individual chop or steak.

### **SHAPE (NA)**

## F. WEIGHT RANGE

**Table 1. INDEX OF IMPS LAMB PRODUCTS AND WEIGHT RANGES**

The following weight ranges are intended as guidelines. Carcass weights are not necessarily related to the weight of cuts within their respective weight range. Other weights or ranges may be specified.

Item No.	Product Name	Weight Ranges (Pounds)			
		Range A	Range B	Range C	Range D
200	Carcass .....	41 - 55	55 - 65	65 - 75	75 - up
200A	Carcass, 3 Way.....	41 - 55	55 - 65	65 - 75	75 - up
200B	Carcass, Block Ready, .....	41 - 55	55 - 65	65 - 75	75 - up
202	Foresaddle .....	21 - 25	25 - 35	35 - 40	40 - up
203	Bracelet .....	6 - 8	8 - 10	10 - 12	12 - up
204	Rack .....	4 - 5	5 - 7	7 - 9	9 - up
204A	Rack, Chined .....	2 - down	2 - 3	3 - 4	4 - up
204B	Rack, Roast Ready.....	2 - down	2 - 3	3 - 4	4 - up
204C	Rack, Roast Ready, .....	2 - down	2 - 3	3 - 4	4 - up
	Frenched				
204D	Rack, Roast Ready,.....	1.5 - down	1.5 - 2.5	2.5 - 3.5	3.5 - up
	Frenched, Special				
204E	Rack, Ribeye Roll .....	1 - down	1 - 1.5	1.5 - 2.5	2.5 - up
206	Shoulders .....	14 - 19	19 - 23	23 - 27	27 - up
207	Shoulders, Square-Cut.....	5 - 6	6 - 8	8 - 10	10 - up
207A	Shoulder, Outside.....	3 - down	3 - 4	4 - 5	5 - up
208	Shoulder, Square-Cut, .....	4 - 5	5 - 7	7 - 9	9 - up
	Boneless, Tied				
208A	Shoulder, Outside, .....	2 - down	2 - 3	3 - 5	5 - up
	Boneless, Tied				
208B	Shoulder, Arm Out, Boneless.....	3 - down	3 - 4	4 - 6	6 - up
208C	Shoulder, Inside Roll, Boneless....	1.5 - down	1.5 - 2.5	2.5 - 3.5	3.5 - up
209	Breast .....	2 - down	2 - 3	3 - 4	4 - up
209A	Ribs, Breast Bones Off .....	2 - down	2 - 3	3 - 4	4 - up
209B	Shoulder, Ribs .....	1 - down	1 - 2	2 - 3	3 - up
210	Foreshank.....		.05 - 1	1 - 1.5	1.5 - 2
					2 - up
229	Hindsaddle, Long-Cut.....	25 - 31	31 - 38	38 - 43	43 - up
229A	Hindsaddle, Long-Cut, .....	23 - 29	29 - 36	36 - 41	41 - up
	Trimmed				
230	Hindsaddle .....	20 - 25	25 - 30	30 - 35	35 - up
231	Loins .....	6 - 8	8 - 11	11 - 13	13 - up
232	Loins, Trimmed.....	4 - 5	5 - 7	7 - 9	9 - up
232A	Loin, Short-Cut, Trimmed.....	1 - 2	2 - 3	3 - 4	4 - up
232B	Loins, Double, Boneless, Tied .....	2 - down	2 - 3	3 - 5	5 - up
232C	Loin, Boneless, Tied.....	1 - down	1 - 2	2 - 4	4 - up
232D	Loin, Short Tenderloin .....	0.5 - down	0.5 - 1	1 - 2	2 - up
232E	Flank, Untrimmed .....	0.5 - down	0.5 - 1	1 - 2	2 - up
233	Legs .....	6 - 9	9 - 13	13 - 17	17 - up
233A	Leg, Trotter Off.....	5 - 9	9 - 13	13 - 17	17 - up
233B	Leg, Shank Off.....	4 - 6	6 - 8	8 - 11	11 - up
233C	Leg, Trotter Off,.....	4 - 8	8 - 12	12 - 16	16 - up
	Partially Boneless				
233D	Leg, Shank Off, .....	3 - 5	5 - 7	7 - 10	10 - up
	Partially Boneless				
233E	Leg, Steamship, 3/4, Aitch,.....	5 - 7	7 - 9	9 - 11	11 - up
	Removed				
233F	Leg, Hindshank.....	1 - down	1 - 2	2 - up	
233G	Leg, Hindshank, Heel On.....	1 - down	1 - 2	2 - up	
234	Leg, Boneless, Tied.....	5 - 8	8 - 11	11 - 13	13 - up

234A	Leg, Shank Off, Boneless, Tied	6 - 8	8 - 9	9 - 11	11 - up
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Item No.	Product Name	Weight Ranges (Pounds)			
		Range A	Range B	Range C	Range D
234B	Leg, 2-way, Boneless	2 - 5	5 - 7	7 - 9	9 - up
234C	Leg, Bottom, Boneless	2 - down	2 - 5	5 - 7	7 - up
234D	Leg, Outside, Boneless	1 - down	1 - 1.5	1.5 - 3	3 - up
234E	Leg, Inside, Boneless	1 - down	1 - 1.5	1.5 - 2	2 - up
234F	Leg, Sirloin Tip, Boneless	0.5 - down	0.5 - 1.5	1.5 - 2.5	2.5 - up
234G	Sirloin, Boneless	2 - down	2 - 3	3 - 4	4 - up
235	Back	11 - 12	12 - 14	14 - 16	16 - 18
236	Back, Trimmed	8 - 11	11 - 13	13 - 15	15 - up
238	Trimmings		Amount as Specified		
239	Special Trimmings		Amount as Specified		
242	Loins, Full	3 - 4	4 - 6	6 - 8	8 - up
243	Loins, Full, Trimmed	2 - 3	3 - 5	5 - 7	7 - up
244	Loin, Boneless, 3 - way	2 - 3	3 - 5	5 - 7	7 - up
245	Sirloin	2 - down	2 - 3	3 - 4	4 - up
246	Tenderloin		0.5 - down	0.5 - 1.5	1.5 - 2.5 2.5 - up
295	Lamb for Stewing		Amount as Specified		
295A	Lamb for Kabobs		Amount as Specified		
296	Ground Lamb		Amount as Specified		
296A	Ground Lamb with Vegetable Protein Product		Amount as Specified		

When unsplit shoulders, backs, etc. are specified, their respective weights must be twice that prescribed for single cuts in the table. The above weights are recommended for cuts prepared in accordance with Cutting Instructions for Style A.

**Table 2. INDEX OF IMPS LAMB PORTION CUT PRODUCTS AND WEIGHT RANGES**

Item No.	Product Name	Ounces
1200	Cubed Steaks	2 - 6
1201	Cubed Steaks, Special	2 - 6
1202	Braising Steaks, Swiss	2 - 6
1204B	Rib Chops	2 - 8
1204C	Rib Chops, Frenched	2 - 8
1204D	Rib Chops, Special, Frenched	2 - 8
1204F	Rib Chops, Fancy, Frenched	2 - 6
1207	Shoulder Chops	2 - 8
1232A	Loin Chops	2 - 8
1232B	Loin Chops, Double, Boneless	2 - 8
1232C	Loin Chops, Single, Boneless	2 - 8
1233E	Leg, Center-Cut Chops	2 - 8
1234	Leg Chops, Boneless	2 - 8
1234A	Leg, Cutlet, Boneless	2 - 8
1296	Ground Lamb Patties	2 - 8
1296A	Ground Lamb and Vegetable Protein Product Patties	2 - 8
1297	Lamb Steaks, Flaked and Formed, Frozen	2 - 8
1297A	Lamb Sandwich Steaks, Flaked, Chopped, Formed and Wafer Sliced, Frozen	2 - 8
1297B	Lamb Steaks, Sliced and Formed, Frozen	2 - 8

In conjunction with other markings that may be required in the General Requirements and by Meat and Poultry Inspection Regulations, the IMPS item number, Class (Lamb, Yearling Mutton, or Mutton), and the product name listed above shall be used for marking of shipping containers. Abbreviation of the product name is recommended. Abbreviations, when used, shall be as follows:

Arm Out - A/O  
Block Ready - B/R  
Boneless - Bnls  
Roast - Rst  
Center Cut - Cntr Cut  
Roast-Ready - Rst-Rdy

Short-Cut - Sh-Cut  
Shoulder - Shld  
Sirloin - Sirln  
Ground - Grnd  
Heel Out - H/O  
Shank Off - S/O

Square-Cut - Sq-Cut  
Partially - Part  
Tenderloin - Tender  
Trimmed - Trmd  
Trotter Off - T/O

The above products names and abbreviations have been reviewed and approved by USDA, FSIS, Product Assessment Division, Food Standards and Ingredients Branch, Washington, D.C.

## **G. NETTING AND TYING**

When tying is required, stretchable netting (or any other equivalent material) shall be used to make roasts firm and compact. Unless otherwise specified, roasts shall be netted so that all portions are held intact, without any portions protruding through the ends of the netting. Alternatively, roasts may be string tied by loops of twine uniformly spaced at no more than approximately 2.0 inch (5.0 cm) intervals girthwise (perpendicular to item length). When girthwise tying does not make roasts firm and compact, lengthwise tying shall also be used.

## **H. PACKAGING AND PACKING**

The purchaser shall specify packaging and packing for delivery of product. (See IMPS GENERAL REQUIREMENTS for details.)

## **I. QUALITY ASSURANCE**

The purchaser may consult the IMPS QUALITY ASSURANCE PROVISIONS for options regarding product examination and lot acceptance criteria in terms of Acceptable Quality Levels (AQLs).

**USDA CERTIFICATION** - When requested, the purchaser shall specify within a contract or purchase order that product shall be Certified by USDA, AMS, Meat Grading and Certification Branch. For more information regarding this service, contact:

USDA, MRP, AMS, Livestock and Seed Program  
Meat Grading and Certification Branch  
Stop 0248, Room 2628 S-Bldg  
1400 Independence Ave. SW  
Washington, D.C. 20250-0248 Phone: (202) 20250-0248 Fax-(202)-690-4119

Internet Address: <http://www.ams.usda.gov/lsg/lc.mg.htm>

## **II. MATERIAL REQUIREMENTS**

All product offered shall comply with the following material requirements and the individual item descriptions. For certification, product shall be evaluated in accordance with the IMPS QUALITY ASSURANCE PROVISIONS.

### **A. QUALITY**

#### **1. Condition**

All product offered as meeting the specification requirements must be in excellent condition. For certification, product shall be in the fresh-chilled state (not previously frozen) when examined for excellent condition; i.e., exposed lean and fat surfaces shall be of a color and bloom normally associated with the class, grade, and cut of meat, and typical of meat which has been properly stored and handled. Cut surfaces and naturally exposed lean surfaces shall show no more than slight darkening or discoloration due to dehydration, aging, and/or microbial activity. The fat shall show no more than very slight discoloration due to oxidation or microbial activity. No odors foreign to fresh meat shall be present. Changes in color and odors characteristically associated with vacuum packaged meat in excellent condition shall be acceptable. Also, product shall show no evidence of freezing, defrosting, or mishandling. Meat must be maintained in excellent condition through processing, storage, and transit.

Portion-cut and ground items to be delivered frozen may be produced from frozen meat cuts which have been previously certified in the fresh-chilled state, provided such cuts show no evidence of deterioration. Unless otherwise specified, portion cut items shall maintain their approximate original shape. Products thus produced shall be packaged, packed, and returned promptly to the freezer.

#### **2. Lean Quality**

All meat shall be practically free of bruises, blood clots, bloody tissue, blood discoloration, exposed spinal cord portions, spleen, exposed blood vessels, cod and/or udder fat, or any other conditions which would negatively affect the use of the product.

All cuts shall be free of dislocated or enlarged joints or other malformations of the skeletal structure. However, cuts with bones broken during processing are acceptable if the bones are not splintered to the extent that the lean around the fracture is affected.

#### **3. Cutting, Trimming, and Boning Cuts**

The cutting, trimming, and boning of the cuts shall be accomplished with sufficient care to allow each cut to retain its identity and to avoid objectionable scores in the lean. Ragged edges shall be removed close to the lean surfaces. Except for cuts that are separated through natural seams, all cut surfaces shall form approximate right angles with the skin surface. No more than a slight amount lean, fat, or bone shall be removed or included from an adjacent cut. All

boneless cuts shall be free of bones and cartilages.

Unless otherwise specified, the shoulder, rack, loin, and leg items shall be split lengthwise through the associated vertebrae (backbone) into single cuts.

Except for steaks which are cubed and/or knitted or unless otherwise specified in the individual item description, steaks shall be cut in full slices in a straight line reasonably perpendicular to the outer surface and at an approximate right angle to the length of the cut being sliced or portioned. Portion-cut items shall be practically free of: (1) fractures, (2) tag ends, and (3) knife scores. Individual steaks shall remain intact when suspended 2 inch (13 mm) from the outer edge.

### Fat Trim

When fat trim requirements are specified by the purchaser or within the individual item description, all fat shall be removed.

Trimming of external fat shall be accomplished by smoothly removing the fat following the contour of the underlying muscle surface. Beveling of the edges only is not acceptable. Two terms used for describing fat limitations are:

(1) maximum fat thickness at any one point and (2) average fat thickness. Fat thickness requirements may apply to surface fat (external and/or exterior fat in relationship to the item) and seam fat (fat between adjacent muscles within an item) as specified by the purchaser or within the detailed item description.

Peeled/Denuded - The term "Peeled" implies surface fat and muscle separation through natural seams so that the resulting cut's seamed surface ("silver" or "blue" tissue) is exposed with remaining "flake" fat not to exceed 1.0 inch (25 mm) in any dimension and/or 1/8 inch (3 mm) in depth at any point. The term "denuded" implies all surface fat is removed so that the resulting cut's seamed surface ("silver" or "blue tissue") is exposed with remaining "flake" fat not to exceed 1.0 inch (25 mm) in any dimension and/or 1/8 inch (3 mm) in depth at any point.

Peeled/Denuded, Surface Membrane Removed - When the surface membrane ("silver" or "blue" tissue) is required to be removed (skinned), the resulting cut surface shall expose at least 90% lean with remaining "flake" fat not to exceed 1/8 inch (3 mm) in depth.

Cuts and roast items - The maximum fat thickness at any one point is evaluated by visually determining the area of a cut which has the most fat thickness and measure the thickness (depth) at this point. The average fat thickness is evaluated by visually determining the areas of surface fat and taking multiple measurements in these areas only. The average shall be determined by evaluating the amount of surface area that each thickness represents (i.e., if one third of the fat surface was 0.2 inch (5 mm) in depth, one third was 0.3 inch (8 mm) in depth and one third was 0.4 inch (10 mm) in depth, then the average would be 0.3 inches (8 mm)).

The actual measurements of fat are made on the edges of the cut and by probing or scoring the overlying surface fat as necessary in a manner that reveals the actual fat thickness and

accounts for any natural depression or seam which could affect the measurement.

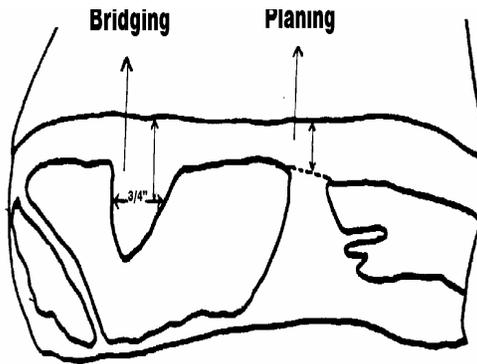


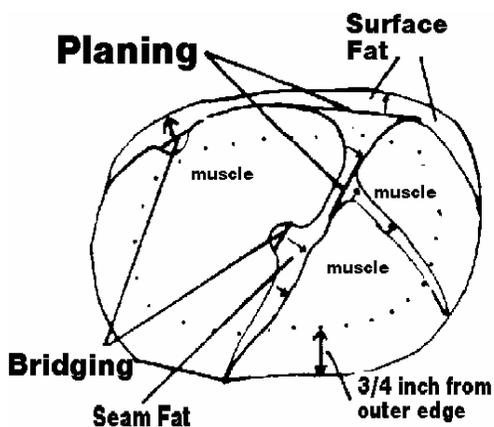
Figure 1

When a natural depression occurs in a muscle, only the fat above the portion of the depression which is more than 3/4 inch (19 mm) in width is considered (this method is known as "bridging"). When a seam of fat occurs between adjacent muscles only the fat above the level of the involved muscles is measured (this method is known as "planing") (See Figure 1).

However, when fat limitations for Peeled/Denuded or Peel/Denuded, Surface Membrane Removed are specified, the bridging method shall be used for evaluating fat above a natural depression in a muscle and fat occurring between adjacent muscles.

Diced and chop portion-cut items - For the purpose of measuring surface fat, the maximum fat thickness at any one point is evaluated by visually determining the areas on the edges of either side of the dice or portion-cut which have the thickest amount of fat and measuring the thickness (depth) of fat in these areas. The average fat thickness is evaluated by visually determining the various areas of surface fat and taking multiple measurements in these areas. The average shall be determined by evaluating the amount of surface area that each thickness represents.

The actual measurements of fat are made on the edges of the cut and by probing or scoring the fat surface as necessary in a manner that reveals the actual fat thickness. For chops, the bridging and/or the planing methods shall be applied to take into account any natural depression occurring in a muscle and/or when a seam of fat occurs between adjacent muscles (See Figure 2).



For the purpose of measuring seam fat, when specified, the maximum fat thickness at any one point is evaluated by visually determining the areas of fat between layers of lean (muscles) on any side of the cut which have the thickest (widest) deposits of fat and measuring the width in these areas. The average fat thickness is evaluated by visually determining the various areas of seam fat and

taking multiple measurements in these areas. The average shall be determined by evaluating the areas that each thickness (width) represents.

For chops, the bridging and/or planing methods shall be applied to take into account the irregular widths of the seam fat within a muscle depression or between adjacent muscles in order to reveal the actual fat thickness (width) of fat within a seam. Seam fat shall be evaluated no closer than 3/4 inch (19 mm) from the contour (projected perimeter when symmetrically formed or unformed) of the outer edge of the steak (See Figure 2).

Figure 2

However, when fat limitations for Peeled/Denuded or Peel/Denuded, Surface Membrane Removed are specified, the bridging method shall be used for evaluating fat above a natural depression in a muscle and fat occurring between adjacent muscles.

### III. ITEM DESCRIPTIONS

Note: In addition to the illustrations of muscles contained in this document, a reference for identification of muscles is "Ovine Myology" by R.G. Kauffman, L.E. St. Clair, and R.J. Reber.

**Item No. 200 - Carcass** - A lamb, yearling mutton, or mutton carcass is the entire unsplit carcass. Bloody tissue, frayed ends at the neck and practically all kidney, pelvic and heart fat shall be removed. The diaphragm and the hanging tender may be removed. However, if present, the membranous portion shall be trimmed close to the lean.

**Item No. 200A - Carcass, 3 Way** - This item is as described in Item No. 200, except that the carcass is separated into three portions, (double shoulder, double back, and double leg) and packaged. The portions shall be separated as described for the following styles. When style is not specified by the purchaser, the requirements for Style A shall be followed.

Style A - The shoulders shall be separated from the back in accordance with separation a, and the legs from the back in accordance with separation c. (Refer to Cutting Instructions for Style A.)

Style B - The shoulders shall be separated from the back in accordance with separation a, and the legs from the back in accordance with separation c. (Refer to Cutting Instructions for Style B.)

**Item No. 200B - Carcass, Block-Ready** - This item is as described in Item No. 200 except that, unless otherwise specified, the carcass is separated into single square-cut shoulders, single racks, single loins, foreshanks, breasts, and single legs and packaged. The hanging

tenders and kidneys shall be removed. When style is not specified by the purchaser, the requirements for Style A shall be followed.

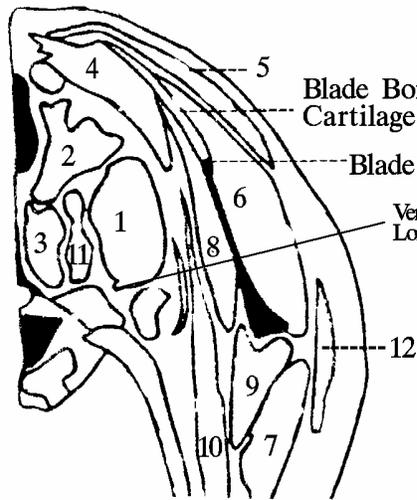
Style A - The shoulders, racks, loins, and legs shall be separated in accordance with separations a, b, and c of the Cutting Instructions for Style A. The breast shall consist of the brisket attached to the breast. The foreshanks shall be separated from the brisket through the natural seam by a cut which passes through the web (*pectorales superficialis*). The trotter (lower foreshank) shall be removed at the knee joint.

Style B - The shoulders, racks, full loins, and legs shall be separated in accordance with the separations a, b, and d of the Cutting Instructions for Style B. The foreshanks shall be separated from the brisket through the natural seam by a cut which passes through the web (*pectorales superficialis*). The trotter (lower foreshank) shall be removed at the knee joint.

**Item No. 202 - Foresaddle** - The foresaddle is separated from the hindsaddle as described in separation b as referenced in the Cutting Instructions for Style A or Style B. This item consists of the intact shoulder, rack, breast, and foreshank and shall contain 12 ribs for Style A and 13 ribs for Style B. Bloody tissue, frayed ends at the neck end and practically all heart fat shall be removed. The diaphragm and the hanging tender may be removed. However, if present, the membranous portion shall be trimmed close to the lean. When style is not specified by the purchaser, the requirements for Style A shall be followed.

## RACK – SHOULDER SEPARATION

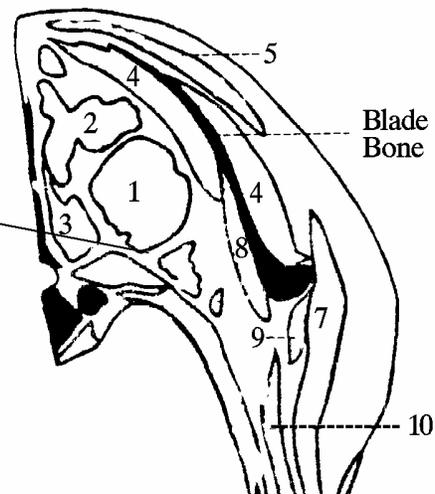
DORSAL



VENTRAL

**STYLE A**

DORSAL



VENTRAL

**STYLE B**

1. *Longissimus dorsi*
2. *Spinalis*
3. *Multifidus*
4. *Rhomboideus*

5. *Trapezius*
6. *Infraspinatus*
7. *Latissimus dorsi*
8. *Subscapularis*

9. *Teres major*
10. *Serratus ventralis*
11. *Semispinalis capitis*
12. *Tensor fasciae antebrachii*

The purchaser may specify one of the following styles for **Item Nos. 203, 204, and 204A**. If not specified, product shall comply with Style A requirements.

Style:    A: 8 ribs (ribs 5 - 12)  
           B: 8 ribs (ribs 6 - 13)

For Style B bracelet and rack/rib items, the *serratus ventralis* muscle shall not extend past (dorsal to) the ventral side of the *longissimus dorsi*.

**Item No. 203 - Bracelet** - The bracelet consists of the rack and breast from both sides of the carcass attached. It is separated from the shoulder as described in separation a, and from the loin in separation b. When style is not specified by the purchaser, the separations a and b for Style A shall be followed.

**Item No. 204 - Rack** - The rib rack is as described in Item No. 203 except that the breast shall be removed. The breast shall be removed from the bracelet by a straight cut across the ribs

which is not more than 4.0 inches (10.0 cm) from the ventral edge of the *longissimus dorsi*. The diaphragm and fat on the ventral surface of the vertebrae shall be removed.

**Item No. 204A - Rack, Chined** - This item is as described in Item No. 203 except the rack shall be split and the breast shall be removed by a straight cut across the ribs which is not more than 4.0 inches (10.0 cm) from the ventral edge of the *longissimus dorsi*. The chine bones shall be removed such that the lean is exposed between the ribs and the feather bones, leaving the feather bones attached. The blade bone and associated cartilage and fell membrane shall be removed.

**Item No. 204B - Rack, Roast Ready** - This item is as described in Item No. 204A except that the breast side of the ribs shall be removed by a straight cut across the ribs which is not more than the PSO from the ventral edge of the *longissimus dorsi*. Additionally, feather bones, exterior fat cover, backstrap and the *trapezius*, *infraspinatus*, and *latissimus dorsi* shall be removed.

PSO = The purchaser may specify one of the following tail length options for **Item No. 204B**. If not specified, tail length will not be more than 3.0 inches (7.5 cm) from the ventral edge of the *longissimus dorsi* or as specified within the item description.

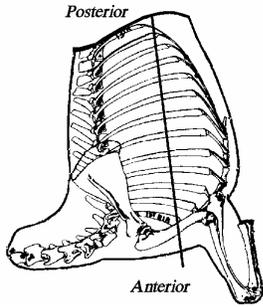
PSO: A: 2 in. (5.0 cm)  
B: 1 in. (25 mm)  
C: 0 in. (0 mm)

**Item No. 204C - Rack, Roast Ready, Frenched** - This item is as described in Item No. 204B except that the breast side of the ribs shall be frenched (removal of the *intercostal* meat and lean and fat over the ribs). Exposed portions of rib bones shall not exceed 1.5 inches (3.8 cm) in length and the remaining *intercostal* meat and lean and fat over the rib bones shall not exceed 1.5 inches (3.8 cm) from the ventral edge of the *longissimus dorsi* muscle.

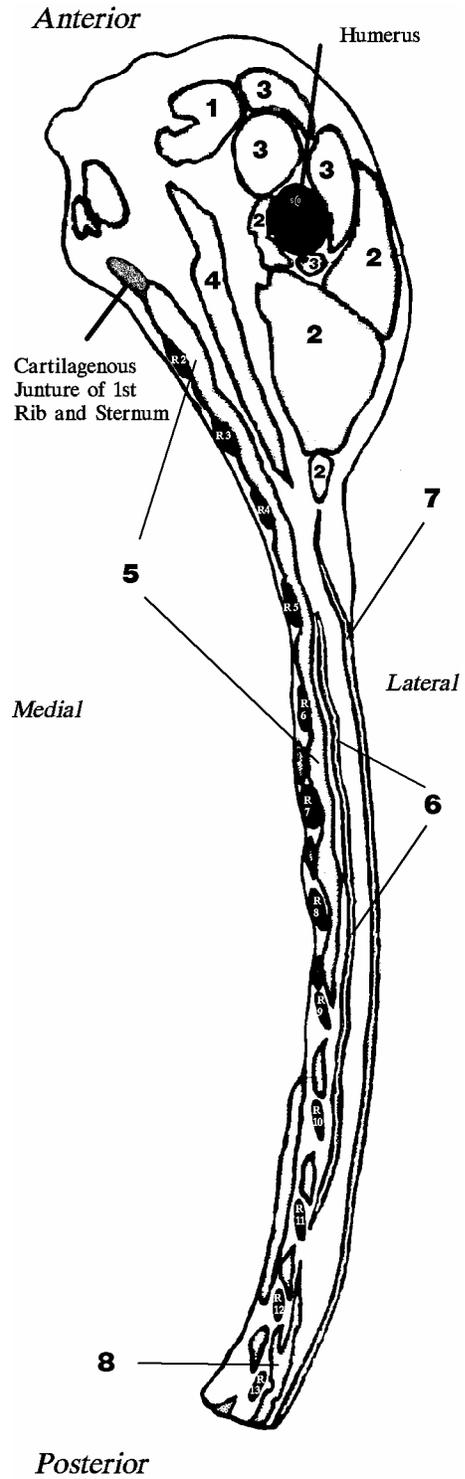
**Item No. 204D - Rack, Roast Ready, Frenched, Special** - This item is as described in Item No. 204C except that the blade bone and the muscles firmly attached below the blade bone (*rhomboideus* and *subscapularis*) shall be removed.

**Item No. 204E - Rack, Ribeye Roll** - This item is as described in Item No. 204D except that all bones shall be removed. It shall consist of the *longissimus dorsi*, *multifidus dorsi*, *spinalis dorsi*, and the minor muscles, fat and related *intercostal* lean on the breast side. The breast shall be removed by a straight cut not more than 1.0 inch (25 mm) from the ventral edge of the *longissimus dorsi*.

**A cross-section of the arm portion of the shoulder and breast/rack separation.**



- 1 - *Pectoralis superficialis*
- 2 - *Triceps brachii* group
- 3 - Minor muscles associated with the humerus
- 4 - *Pectoralis profundus*
- 5 - *Serratus ventralis*
- 6 - *Latissimus dorsi*
- 7 - *Cutaneous trunci*
- 8 - *Obliquus externus abdominis*



The purchaser may specify one of the following styles for **Item Nos. 206, 207, 208, 208A, 208B, and 208C**. If style is not specified, product shall comply with Style A requirements.

Style:     A: 4 ribs (ribs 1 - 4)  
           B: 5 ribs (ribs 1 - 5)

**Item No. 206 - Shoulders** - The shoulders are separated from the carcass as described in separation a. Thymus gland and heart fat shall be closely removed. Purchaser may specify the item as single or double.

**Item No. 207 - Shoulders, Square-Cut** - This item is as described in Item No. 206 except that the foreshank and brisket (portions of the sternum, associated cartilage, overlying lean and fat and rib ends) are removed by a straight cut approximately perpendicular to the rib side and through the cartilaginous juncture of the first rib and the sternum. The neck shall be removed by a straight cut perpendicular to the rack side which leaves not more than 1.0 inch (25 mm) of the neck on the shoulder. Purchaser may specify the item as single or double.

**Item No. 207A - Shoulder, Outside** - This item shall consist of the shank, humerus, and blade bone and associated muscles of the shoulder. It may be prepared from the shoulder prior to removal of the rack and breast by cutting the web muscle (*pectoralis superficialis*) and following the natural seam to a point immediately medial to the blade cartilage. The trotter (lower foreshank) shall be removed at or above the knee joint. The thick end (arm end) shall include the shank and humerus bones and overlying lean (*latissimus dorsi, triceps brachii* group, minor muscles associated with the humerus). The thin end (blade end) shall consist of the blade bone and muscles overlying the blade bone (*supraspinatus, infraspinatus, latissimus dorsi* and may contain the *subscapularis* and *teres major*). The *cutaneous* muscle (shoulder rose) shall be removed when the underlying fat exceeds the surface fat thickness specified. All sides shall be trimmed following the natural curvature of the major muscles and the scapula.

**Item No. 208 - Shoulder, Square-Cut, Boneless, Tied** - This item is prepared from Item No. 207. All bones, cartilages, backstrap, fell, prescapular lymph gland, and heart fat shall be removed. The brisket side and rib end shall form an approximate right angle. The brisket side shall expose the *pectoralis profundus* extending posterior to the 3rd rib mark. The neck shall be removed by a straight cut approximately perpendicular to the rack end leaving no more than 1.0 inch (25 mm) of the neck on the shoulders. The shoulder shall be rolled with the ribeye lengthwise to the roll and netted or tied.

**Item No. 208A - Shoulder, Outside, Boneless, Tied** - This item is as described in Item 207A except that all bones and cartilages shall be removed. The tendons on the elbow end shall be trimmed to be even with the lean. This item shall be netted or tied.

**Item No. 208B - Shoulder, Arm Out, Boneless** - This item is as described in Item No. 208 except that the arm portion shall be removed (after removal of the outside shoulder) by a straight cut at an approximate right angle to the rack end, which is ventral to, but no more than 3.0 inches (7.5 cm) or less than 1.0 inch (25 mm) from, the *longissimus dorsi* at the rack end. The outside shoulder and blade portion shall be individually packaged.

**Item No. 208C - Shoulder, Inside Roll, Boneless** - This boneless item consists of the muscle system which lies under the blade bone. The arm shall be removed by a straight cut at an approximate right angle to the rack end, which is ventral to, but no more than the PSO from the *longissimus dorsi* at the rack end. The blade bone and associated muscles and fat above the blade bone (*supraspinatus* and *trapezius*) shall be removed. All bones and cartilages shall be removed.

PSO = The purchaser may specify tail length options for **Item No. 208C**. If not specified, tail length will not be more than 3.0 inches (7.5 cm) from the ventral edge of the *longissimus dorsi* or as specified within the item description.

PSO: A: 2 in. (5.0 cm)  
B: 1 in. (25 mm)  
C: 0 in. (0 mm)

**Item No. 209 - Breast** - This item is that portion of the bracelet after removal of the rib rack. The diaphragm may be removed. However, if present, the membranous portion of the diaphragm shall be trimmed close to the lean. The heart fat shall be closely removed.

**Item No. 209A - Ribs, Breast Bones Off** - This item is prepared from Item No. 209 and shall consist of at least 7 ribs, and the *intercostal* muscles, *serratus ventralis*, and associated muscles immediately overlying the ribs. The cut shall be not less than 3.0 inches (7.5 cm) in width. The sternum and ventral edges of the costal cartilages shall be removed. The fell, *cutaneous trunci*, exterior fat cover, *latissimus dorsi*, and diaphragm shall be removed. This item shall be trimmed practically free of surface fat.

**Item No. 209B - Shoulder, Ribs** - This item may be derived from any square-cut IMPS shoulder item and shall include at least 4 ribs and the *intercostal* and *serratus ventralis* muscles. This item shall be trimmed practically free of surface fat. The dorsal edge shall have no evidence of the cartilaginous junctures of the ribs and thoracic vertebrae.

**Item No. 210 - Foreshank** - The foreshank shall be removed from the shoulder by straight cut exposing the humerus and removed from the brisket by a cut through the natural seam and may contain a portion of the web muscle (*pectoralis superficialis*). The trotter (lower foreshank) shall be removed at or above the knee joint. The purchaser may specify one of the following options for **Item Nos. 229 and 229A**, described below. If not specified, product shall comply with Style A requirements.

Style: A: 9 ribs (ribs 5 - 13)

B: 8 ribs (ribs 6 - 13)

**Item No. 229 - Lamb Hindsaddle, Long-Cut** - This item is as described in Item No. 200 except that the shoulders shall be removed by a straight cut between the 4th and 5th ribs for Style A and between the 5th and 6th ribs for Style B.

**Item No. 229A - Lamb Hindsaddle, Long-Cut, Trimmed** - This item is as described in Item No. 229 except that flanks and plates are removed by straight cuts ventral to, but no more than 4.0 inches (10.0 cm) from, the *longissimus dorsi* at the shoulder end, to a point that is immediately ventral to the *tensor fasciae latae* on the leg.

The purchaser may specify one of the following styles for **Item No. 230**. If not specified, product shall comply with Style A requirements.

Style: A: 13th rib remains with the hindsaddle  
B: 13th rib remains with the foresaddle

**Item No. 230 - Hindsaddle** - This item is the posterior portion of the carcass after separation from the foresaddle by a cut which follows the natural curvature between the 12th and 13th ribs for Style A and posterior to the 13th rib for Style B. This item shall be practically free of all kidney and pelvic fat. The diaphragm and the hanging tender may be removed. However, if present, the membranous portion of the diaphragm shall be trimmed close to the lean.

The purchaser may specify one of the following styles for **Item Nos. 231, 232, 232A, 232B, and 232C**. If not specified, product shall comply with Style A requirements or as specified within the item description.

Style: A: Anterior to the 13th rib  
B: Posterior to the 13th rib

**Item No. 231 - Loins** - This item is prepared from Item No. 230. The legs shall be removed in accordance with separation c for Style A or B. This item shall be practically free of all kidney and lumbar fat.

**Item No. 232 - Loins, Trimmed** - This item is as described in Item No. 231. The flank is removed by a straight cut which is not more than 4.0 inches (10.0 cm) from the *longissimus dorsi* at the rack end to a point on the leg end which is not more than 4.0 inches (10.0 cm) from, the *longissimus dorsi*. The diaphragm, hanging tenders and kidneys shall be removed.

PSO = The purchaser may specify one of the following tail length options for **Item Nos. 232A, 232B, and 232C**. If not specified, tail length will not be more than 3.0 inches (7.5 cm) from the ventral edge of the *longissimus dorsi* or as specified within the item description.

PSO: A: 2 in. (5.0 cm)  
B: 1 in. (25 mm)

C: 0 in. (0 mm)

**Item No. 232A - Loin, Short-cut, Trimmed** - This item is as described in Item No. 232 except that it is a single loin and the flank is removed by a straight cut which is not more than the PSO from the *longissimus dorsi* at the rack end, to a point on the leg/sirloin end, which is not more than the PSO from the *longissimus dorsi*.

**Item No. 232B - Loins, Double, Boneless, Tied** - This item may be derived from any unsplit loin item of any style. The leg/sirloin end shall be derived in accordance with separation c for Style A or B. The flanks shall be removed by a straight cut which is not more than the PSO from the *longissimus dorsi*, at the rack end, to a point on the leg/sirloin end which is not more than the PSO from the *longissimus dorsi*. All bones, cartilages, hanging tenders, and tenderloins shall be removed while leaving the double boneless loins attached. This item shall be netted or tied.

**Item No. 232C - Loin, Boneless, Tied** - This item is as described in Item No. 232B except that it is a single loin.

**Item No. 232D - Loin, Short Tenderloin** - This item shall consist of the short loin portion of the tenderloin and shall consist of the *psaos major* and *psaos minor* only. The short tenderloin shall be practically free of fat. Bones, cartilage, and ragged edges shall be removed. A score into the tenderloin exceeding 0.5 inch (13 mm) in depth is not acceptable.

**Item No. 232E - Flank, Untrimmed** - This item shall contain the abdominal muscles ventral to the loin. Costal cartilages and rib bones shall be removed.

**Item No. 233 - Legs** - This item is prepared from the posterior portion of the carcass. The legs are separated from the carcass in accordance with separation c for Styles A and B.

The purchaser may specify one of the following styles for **Item Nos. 233A, 233B, 233C, AND 233D**. If not specified, product shall comply with Style A requirements or as specified within the item description.

Style: A: . Leg is separated from the remainder of the carcass in accordance with separation c of the cutting instructions for Style A.  
B: Leg is separated from the remainder of the carcass in accordance with separation d of the cutting instructions for Style B.

**Item No. 233A - Leg, Trotter Off** - This item is prepared from Item No. 233. The legs are split, the trotters (lower hindshank) are removed at the break joint, and the gambrel cord is removed.

**Item No. 233B - Leg, Shank Off** - This item is as described in Item No. 233A. The hindshank is removed by a straight cut through the stifle joint and then follows the natural seam between the shank and the heel.

**Item No. 233C - Leg, Trotter Off, Partially Boneless** - This item is as described in Item No. 233A, except that the pelvic, vertebrae, tail bones, lean and fat overlying the pelvic bone, flank, and practically all cod and udder fat shall be removed.

**Item No. 233D - Leg, Shank Off, Partially Boneless** - This item is as described in Item No. 233C except that the hindshank is removed by a straight cut through the stifle joint and then follows the natural seam between the shank and the heel.

**Item No. 233E - Leg, Steamship, 3/4, Aitch Removed** - This item is as described in 233C except that the sirloin is removed from the leg by a straight cut as described in separation d for Style B.

**Item No. 233F - Leg, Hindshank** - The hindshank shall be removed by a cut through the stifle joint and then follows the natural seam between the shank and the heel. The trotter (lower hindshank) is removed at the break joint and the gambrel cord is removed.

**Item No. 233G - Leg, Hindshank, Heel On** - This item may be prepared from any shank-on leg and is removed by a straight cut through the stifle joint at an approximate right angle to the shank bone leaving the heel or any portion of the heel attached to the shank. The trotter (lower hindshank) is removed at the break joint and the gambrel cord is removed.

**Item No. 234 - Leg, Boneless, Tied** - This boneless item is prepared from Item No. 233A. The loin end shall be exposed in accordance with separation c for Style A and separation d for Style B. The femur is removed by a cut through the natural seam between the knuckle and the inside portions. All bones, cartilages, sacrosciatic ligament and the lean and fat that overlies the ligament, popliteal and exposed lymph glands, gambrel cord, flank, and tendinous ends of the shank and knuckle exposing less than 75 percent lean on a cross-sectional cut shall be removed. The shank meat from the leg may be folded or placed into the femur cavity. This item shall be netted or tied.

**Item No. 234A - Leg, Shank Off, Boneless, Tied** - This is as described in Item No. 234 except that the shank shall be removed. The boneless leg shall be netted or tied.

**Item No. 234B - Leg, 2-Way, Boneless** - This item is as described in Item No. 234A except that the boneless leg shall be separated through the natural seams into 2 portions, bottom (outside and knuckle) and inside. Each portion shall be individually packaged and packed into the same container.

**Item No. 234C - Leg, Bottom, Boneless** - This boneless item may be prepared from the outside (*biceps femoris* and *semitendinosus*) and knuckle (*quadriceps femoris* group and *tensor fasciae latae*) portions of any IMPS boneless leg item. Presence of the *gluteus medius* and heel (*gastrocnemius* and *super digital flexor* muscles) are optional.

PSO = The purchaser may specify any one or a combination of the following options for **Item No. 234C**:

PSO: A: The *gluteus medius* shall remain.

B: The heel and popliteal lymph gland shall be removed by cutting through the natural seam.

**Item No. 234D - Leg, Outside, Boneless** - This boneless item may be prepared from the outside (*biceps femoris* and *semitendinosus*) portion of any IMPS boneless leg item. The presence of the *gluteus medius* is optional. The heel (*gastrocnemius* and *super digital flexor* muscles) and popliteal lymph gland shall be removed by cutting through the natural seam.

PSO = The purchaser may specify any one or a combination of the following options for **Item No. 234D**:

PSO: A: The *gluteus medius* shall remain.

B: When larger-sized roasts are requested, two outside portions shall be reversed, and the boned surfaces placed together and netted or tied to produce a uniformly thick roast.

**Item No. 234E - Leg, Inside, Boneless** - This boneless item may be prepared from the inside portion of any IMPS boneless leg item and shall consist of the *semimembranosus*, *adductor* and firmly attached muscles. The inside is separated from the bottom and knuckle portions along the natural seams. When specified by the purchaser, the boned surfaces of two inside portions shall be placed together and netted or tied to produce a uniformly thick roast.

**Item No. 234F - Leg, Sirloin Tip, Boneless** - This boneless item shall consist of the knuckle portion (*quadriceps femoris* group) and tensor *fasciae latae* of any IMPS boneless leg item. The sirloin tip is separated from the inside and outside portions along the natural seams. All bones, cartilages and tendinous ends exposing less than 75 percent lean on a cross-sectional cut shall be removed.

**Item No. 234G - Sirloin, Boneless** - This item is separated from the carcass as described for separations c and d within Style B. The flank is removed by a straight cut from a point which is not more than 4.0 inches (10.0 cm) from the *gluteus medius* to a point which is not more than 0.25 inch (6 mm) from the *tensor fasciae latae*. All bones, cartilages, sacrosciatic ligament, and the lean and fat that overlies the ligament, shall be removed.

The purchaser may specify one of the following styles for **Item Nos. 235 and 236**. If not specified, product shall comply with Style A requirements.

Style: A: 9 ribs (ribs 5 - 13)

B: 8 ribs (ribs 6 - 13)

**Item No. 235 - Back** - This item consists of the rack, loin, flanks, and plates intact. The shoulders shall be removed by a straight cut between the 4th and 5th ribs for style A and between the 5th and 6th ribs for Style B. The legs shall be removed in accordance with separation c for Styles A or B. The diaphragm may be removed. However, if present, the membranous portion of the diaphragm shall be trimmed close to the lean. This item shall be

practically free of all internal fat.

**Item No. 236 - Back, Trimmed** - This item is as described in Item No. 235 except that the flanks and plates are removed by a straight cut that is ventral to, but no more than 4.0 inches (10.0 cm) from the *longissimus dorsi* on both the shoulder and leg ends. The kidneys and hanging tenders shall be removed.

**Item No. 238 - Trimmings** - Trimmings may be prepared from any portion of the carcass which yields product that meets the end item requirements. All fell, bones, cartilages, backstrap, heavy connective tissue, and lymph glands shall be removed.

The fat content shall be specified by the purchaser and verified by one of the following PSO for **Item No. 238**. If not specified, fat content shall be verified with PSO B requirements.

PSO:     A - Fat content shall be declared on the product label  
          B - Contractor shall submit documentation of fat analysis to purchaser  
          C - Fat content certified by AMS (see Quality Assurance Provisions)  
          D - Samples selected by AMS and sent to purchaser designated laboratory

**Item No. 239 - Special Trimmings** - Trimmings may be prepared from any portion of the carcass which yields product that meets the end item requirements. Unless otherwise specified, shank and heel meat shall be excluded. Unless otherwise specified, trimmings shall consist of pieces which have a surface area on one side which is no less than 6.0 square inches (15.0 square cm) and are no less than 0.3 inch (8 mm) thick at any point. All fell, bones, cartilages, backstrap, heavy connective tissue, detached *cutaneous* muscles, and lymph glands shall be removed. Trimmings shall be practically free of surface and seam fat. The purchaser may specify this item to be further fabricated into strips for stir fry or fajitas.

The purchaser may specify one of the following styles for **Item Nos. 242, 243, and 244**. If not specified, product shall comply with Style A requirements.

Style:     A - Contains the 13th rib  
          B - Does not contain the 13th rib

**Item No. 242 - Loins, Full** - This item consists of the loins and sirloins intact. The racks shall be removed in accordance with separation b. The legs shall be removed in accordance with separation d. This item shall be practically free of all kidney and lumbar fat.

**Item No. 243 - Loins, Full, Trimmed** - This item is as described in Item No. 242, except that the flank shall be removed by a straight cut starting at a point on the rack end that is ventral to, but no more than 4.0 inches (10.0 cm) from the *longissimus dorsi* muscle to a point immediately ventral to the *tensor fasciae latae*. The diaphragm, hanging tenders and kidneys shall be removed.

**Item No. 244 - Loin, Boneless, 3 - way** - This item shall consist of the following IMPS items

which are packaged in the same container:

Item No. - 232C - Loin, Boneless

Item No. - 234G - Sirloin, Boneless

Item No. - 246 - Tenderloin

**Item No. 245 - Sirloin** - This item is separated from the carcass as described for separations c and d within Style B. The flank is removed by a straight cut from a point which is not more than 4.0 inches (10.0 cm) from the *gluteus medius* to a point which is not more than 0.25 inch (6 mm) from the *tensor fasciae latae*.

**Item No. 246 - Tenderloin** - This item is derived from a full intact loin and shall consist of the *psaos major*, *psaos minor*, and *iliacus* (wing). The portion of the *psaos minor* which is not firmly attached shall be removed. All bones and cartilages shall be removed. The tenderloin shall be trimmed practically free of kidney fat.

**Item No. 295 - Lamb for Stewing** - This item shall be prepared from any portion of the carcass which yields product that meets the end item requirements. Meat from the heel and shank is not acceptable. All bones, cartilage, backstrap, heavy connective tissue, exposed large blood vessels, and any exposed lymph glands shall be removed. The boneless meat shall be hand diced or processed through a dicing machine (grinding not permitted). Not less than 85 percent, by weight, of the resulting pieces shall be of a size which is equivalent of not less than a 0.5 inch (13 mm) cube or more than a 1.25 inches (3.1 cm) cube and no individual surface on these pieces shall exceed 2.5 inches (6.2 cm) in length. (When specified, this item may be prepared from yearling mutton or mutton. In which case the name shall be changed to yearling mutton or mutton, as applicable.) Purchaser may specify product be prepared from specific cuts (leg, sirloin, loin, rack, or square-cut shoulder) and product shall be labeled accordingly.

**Item No. 295A - Lamb for Kabobs** - This item is as described in Item No. 295 except (unless otherwise specified) at least 90 percent, by weight, of the resulting dices shall be of a size equivalent to not less than a 0.75 inches (19 mm) cube or not more than a 1.25 inches (3.1 cm) cube and no individual surface shall be more than 2.5 inches (6.2 cm) in length.

**Item No. 296 - Ground Lamb** - (When specified, this item may be prepared from yearling mutton or mutton. In which case the name shall be changed to yearling mutton or mutton, as applicable.)

**Material** - Ground lamb shall be prepared from any portion of a lamb carcass. The meat shall be free of fell, bones, cartilages, exposed lymph glands, heavy connective tissue and the tendinous ends of shanks and knuckles to a point which exposes at least 75 percent lean on a cross-sectional cut. Unless otherwise specified, ground lamb may be derived from previously certified boneless meat which has been frozen and stockpiled. The purchaser may specify the maximum amount of previously certified frozen boneless meat that can be mixed with fresh-chilled meat prior to final grinding.

**Processing** - The boneless meat shall be ground at least once through a plate having holes not larger than 1.0 inch (25 mm) in diameter. Alternatively, boneless lamb may be chopped or machine-cut by any method provided the texture and appearance of the product after final

grinding is typical of ground lamb prepared by grinding only. Unless otherwise specified, final grinding shall be through a plate having holes 1/8 inch (3 mm) in diameter. Lamb shall be thoroughly blended at least once prior to final grinding. However, the ground lamb shall not be mixed after final grinding. Initial reduction in size, blending, and final grinding shall be a continuous sequence.

**Fat Content** - Unless otherwise specified, the fat content shall not exceed 20 percent. However, the purchaser may specify any fat content provided it does not exceed 30 percent and may specify discount ranges.

The fat content may be verified by one of the following PSO for **Item No. 296**. If not specified, fat content shall be verified with PSO A requirements.

- PSO:
- A - Fat content shall be declared on the product label
  - B - Contractor shall submit documentation of fat analysis to purchaser
  - C - Fat content certified by AMS (see Quality Assurance Provisions)
  - D - Samples selected by AMS and sent to purchaser designated laboratory

**Item No. 296A - Ground Lamb and Vegetable Protein Product** - This item is approved for use in Child Nutrition Programs and is as described in Item No. 296 except that vegetable protein product (VPP) shall be added. Source (e.g., soy), Type (flour, concentrate, or isolate), and Texture (granular or textured) of VPP shall be specified by the purchaser. The VPP may be used dry, partially hydrated, or fully hydrated. If not specified, the dry VPP shall be fully hydrated to yield a minimum of 18 percent protein. To determine the maximum amount of water to be mixed with the dry VPP to yield 18 percent protein in the mixture, the following equation shall be used:

$$\frac{[\text{Percent protein on "as is" basis}]}{18} - 1 = x$$

x = maximum pounds of water to be added to each pound of dry VPP.

The VPP shall be hydrated for the length of time listed on the product label. If this information is not available, the product shall be hydrated until all water is absorbed. The purchaser shall specify any level of substitution of hydrated VPP in the combined finished product up to 30 percent. If not specified, the maximum percent of hydrated protein product in the combined finished product shall not exceed 20 percent. The hydrated VPP shall be used in the same working day in which it was hydrated. The hydrated VPP shall be blended with the raw meat (in the specified ratio) following the initial reduction in size.

VPP hydrated and frozen by the VPP manufacturer may be used provided that:

- (1) the protein content of the hydrated product (as specifically stated on the manufacturer's label) is not less than 18 percent;
- (2) the product may be tempered, but not thawed, prior to use;
- and (3) additional water may not be added directly to the meat.

The VPP must meet the nutritional specifications established by the USDA, Food and Nutrition

Service Regulations. To ensure compliance, the VPP used must have information on the label stating, "This product meets USDA-FNS requirements for use in meeting a portion of the meat/meat alternate requirement of the child nutrition programs.≡ Labeling of the finished product must reflect the terms "Vegetable Protein Product" or "Textured Vegetable Protein Product" as appropriate in the ingredient statement (e.g., textured vegetable protein product (Soy Flour, Zinc Oxide, Niacinamide, Ferrous Sulfate, Copper Gluconate, Vitamin A Palmitate, Calcium Pantothenate, Thiamine Mononitrate (B<sub>1</sub>), Pyridoxine Hydrochloride (B<sub>6</sub>), Riboflavin (B<sub>2</sub>), Cyanocobalamin (B<sub>12</sub>)).

## DETAILED REQUIREMENTS FOR PORTION-CUT PRODUCTS

**Item No. 1200 - Cubed Steaks** - Cubed steaks shall be prepared from any portion of the carcass which yields product that meets the end-item requirements. However, shank and heel meat shall be excluded. Unless otherwise specified, the steaks shall be cubed (while in the fresh chilled state) twice at approximate right angles. Knitting of 2 or more pieces and folding the meat when cubing is permissible. After cubing, surface and seam fat shall not exceed 15 percent of the total area on either side of the steak. Individual steaks shall remain intact when suspended 0.5 inch (13 mm) from the outer edge. The steaks shall be free of heavy connective tissue, bones, cartilages, and lymph glands.

**Item No. 1201 - Cubed Steaks, Special** - This item is as described in Item No. 1200 except the steaks shall be prepared from any combination of lean from the leg, sirloin, loin, rack, or square-cut shoulder sections (excluding shank and heel meat) of the carcass. Knitting of 2 or more pieces and folding the meat when cubing is not permissible.

**Item No. 1202 - Braising Steaks, Swiss** - Braising steaks shall be prepared from any combination of lean from the leg, loin, sirloin, rack, or square-cut shoulder sections (excluding shank and heel meat) of the carcass which yields product that meets the end-item requirements. The steaks shall be free of heavy connective tissue, bones, cartilages, and lymph glands. When specified, the raw materials or the steaks shall be mechanically tenderized by using the multiple probe method (pinning) not more than one time. Pressing, knitting, or folding two pieces of meat together is not permissible. Surface and seam fat shall not exceed an average of 1/8 inch (3 mm) in thickness and the thickness at any one point shall not exceed 0.25 inch (6 mm). Surface fat, measuring 0.1 (2 mm) inch or more in thickness, shall not exceed 50 percent of the circumference of the steak. Individual steaks shall remain intact when suspended 0.5 inch (13 mm) from the outer edge. Alternatively, the purchaser may specify surface and seam fat limitations in terms of maximum surface area percentage. Both surface and seam fat of the total cut surface on either side of the steak shall not exceed the percentage specified by the purchaser.

**Item No. 1204B - Rib Chops** - These chops shall be prepared from any bone-in rack item of specified style which yields product that meets the end-item requirements. The feather bones, exterior fat cover, fell membrane, backstrap, blade bone, and the *trapezius*, *infraspinatus*, and *latissimus dorsi* shall be removed. When style is not specified, racks shall comply with Style A requirements. Tail length shall be a PSO.

PSO = The purchaser may specify one of the following tail length options for **Item No. 1204B**. If not specified, tail length will not be more than 3.0 inches (7.5 cm) from the

PSO = ventral edge of the *longissimus dorsi* or as specified within the item description.  
A: 2 in. (5.0 cm)  
B: 1 in. (25 mm)  
C: 0 in. (0 mm)

**Item No. 1204C - Rib Chops, Frenched** - This item is as described in Item No. 1204B except that the breast side of the ribs shall be frenched (removal of the *intercostal* meat and lean and fat over the ribs). Exposed portions of rib bones shall not exceed 1.5 inches (3.8 cm) in length and the remaining *intercostal* meat and lean and fat over the rib bones shall not exceed 1.5 inch (3.8 cm) from the *longissimus dorsi* muscle. Chops having more than one rib bone shall have the rib bone nearest the center of the chop frenched and the other rib bone shall be removed for the distance that the frenched rib bone is exposed. The purchaser shall specify the number of ribs per chop.

**Item No. 1204D - Rib Chops, Special, Frenched** - This item is as described in Item No. 1204C except that the muscles firmly attached below the blade bone (*rhomboideus* and *subscapularis*) shall be removed.

**Item No. 1204F - Rib Chops, Fancy, Frenched** - This item is as described in Item No. 1204D except that this item is frenched immediately ventral to the *longissimus dorsi* muscle and the rib bone length shall not exceed 3.0 inches (7.5 cm).

**Item No. 1207 - Shoulder Chops** - Shoulder chops shall be prepared from both the arm and blade bone sections of a Single Square-cut Shoulder - Item No. 207. Unless otherwise specified, shoulder chops shall consist of the arm and blade chops.

PSO: A: Arm chops - Are derived from the arm portion of Item No. 207 and shall contain a cross section of the humerus and shall be cut approximately parallel to the ventral (shank) side of the shoulder. The rib bones and *intercostal* meat shall be removed.  
B: Blade chops - Are derived from the blade (dorsal) portion of Item No. 207. These chops shall contain a portion of the blade bone and shall be cut approximately parallel to the rib bones.

PSO = The purchaser may specify one of the following tail length options for **Item Nos. 1232A, 1232B, and 1232C**. If not specified, tail length will not be more than 3.0 inches (7.5 cm) from the ventral edge of the *longissimus dorsi* or as specified within the item description.

PSO: A: 2 in. (5.0 cm)  
B: 1 in. (25 mm)  
C: 0 in. (0 mm)

**Item No. 1232A - Loin Chops** - These chops shall be prepared from any bone-in loin item which yields product that meets the end-item requirements and shall contain no portion of the hipbone. The flank edge shall not exceed the PSO for tail length options.

**Item No. 1232B - Loin Chops, Double, Boneless** - Loin chops shall be prepared from any IMPS double, boneless loin item. Chops shall remain firmly attached. The flank edge shall not exceed the PSO for tail length options.

**Item No. 1232C - Loin Chops, Single, Boneless** - The chops shall be prepared from any IMPS single, boneless loin item. The flank edge shall not exceed the PSO for tail length options.

**Item No. 1233E - Leg, Center-Cut Chops** - This item shall be prepared from Item No. 233E except that the center portion of the leg shall be sliced into chops. A cross section of the femur bone (no other bones shall be present) shall be present on both sides of each chop.

**Item No. 1234 - Leg Chops, Boneless** - This item shall be prepared from any boneless IMPS Leg Item (234 series) of specified style, except that shank and heel meat shall be excluded. When style is not specified, then boneless legs shall comply with Style A requirements.

**Item No. 1234A - Leg, Cutlet, Boneless** - This item shall be derived from any combination of the following boneless IMPS items (inside, outside, sirloin tip, and/or sirloin). When specified by the purchaser this item shall be cubed. Knitting of 2 or more pieces and folding the meat when cubing is not permissible.

**Item No. 1296 - Ground Lamb Patties** - The patties shall be prepared from Item No. 296.

**Item No. 1296A - Ground Lamb and Vegetable Protein Product Patties** - The patties shall be prepared from Item No. 296A.

**Item No. 1297 - Lamb Steaks, Flaked and Formed, Frozen** - The steaks shall be prepared from boneless lamb that complies with the material requirements of Item No. 296 and shall be flaked (grinding is not permitted) and formed. The flaking and forming process shall be in compliance with FSIS Regulations. Product shall comply with fat content requirements of Item No. 296. The purchaser shall specify shape and weight of steaks. When specified, the product shall be breaded and labeled appropriately. The breading and its application shall be in accordance with FSIS Regulations.

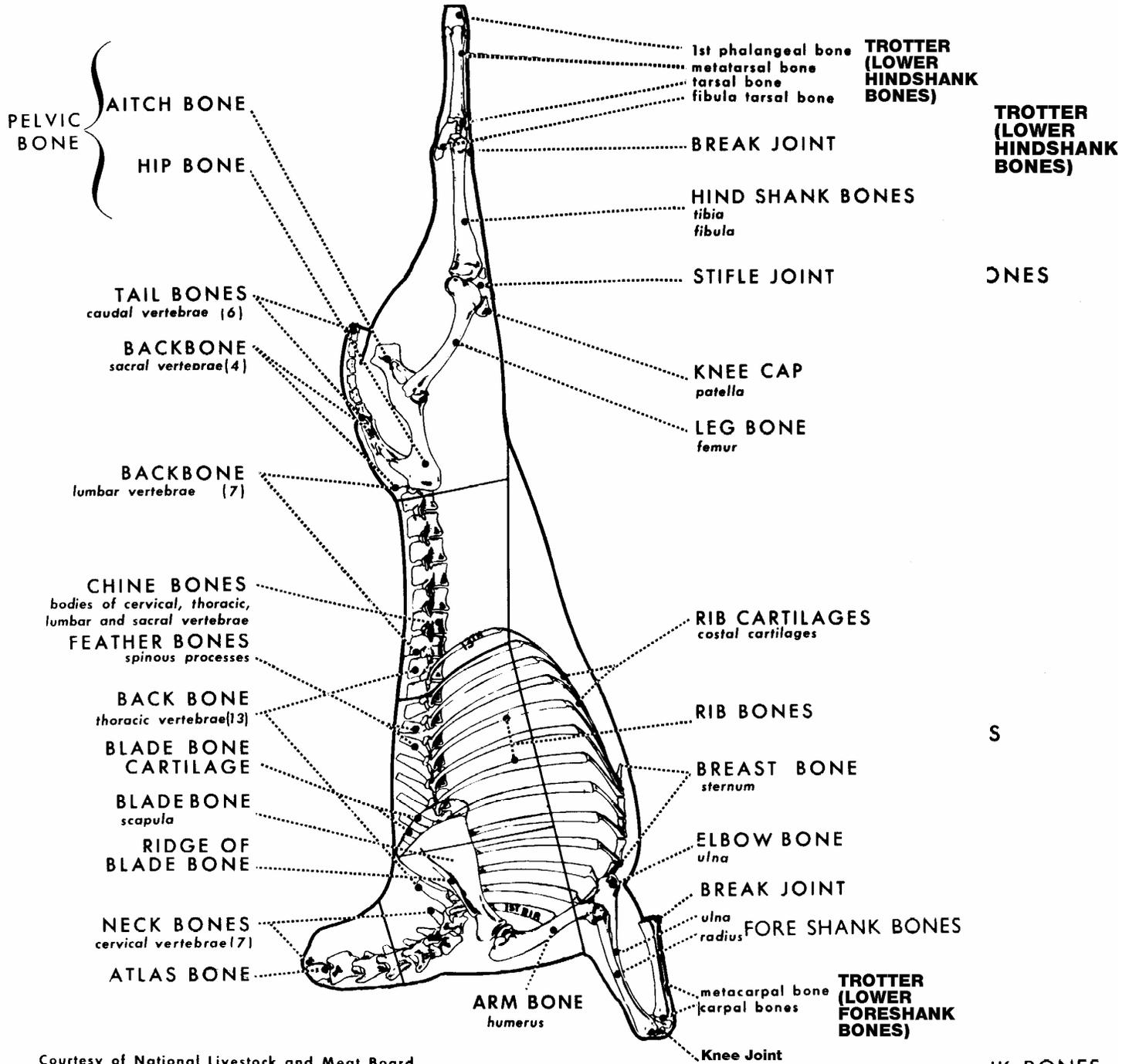
**Item No. 1297A - Lamb Sandwich Steaks, Flaked, Chopped, Formed and Wafer Sliced, Frozen** - The steaks shall be prepared from boneless lamb that complies with the material requirements of Item No. 296. The flaking, chopping, forming, and slicing process shall be in compliance with FSIS Regulations and shall produce steaks which are moderately fine textured. Product shall comply with fat content requirements of Item No. 296. Each steak shall consist of two or more thin slices weighing approximately one ounce each. No more than a minor amount of green/brown/gray rings shall be present. Steaks shall be packaged with paper separators between each steak. Unless otherwise specified, slices shall be approximately 4.75 x 7.5 inches (11.9 x 18.8 cm). The purchaser shall specify weight and/or number of slices per steak.

**Item No. 1297B - Lamb Steaks, Sliced and Formed, Frozen** - The steak shall be prepared from boneless lamb that complies with Item No. 239. The slicing and forming process shall be

in accordance with FSIS Regulations. Ingredients may be added for the purpose of tenderizing and binding and shall appear on product label. The purchaser shall specify weight, shape, and/or thickness of steaks.

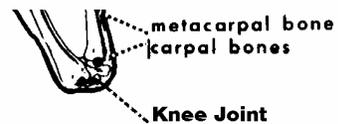
# LAMB SKELETAL CHART

Location, Structure and Names of Bones



Courtesy of National Livestock and Meat Board

**ARM BONE**  
humerus



**TROTTER (LOWER FORESHANK BONES)**

Courtesy of National Livestock and Meat Board

